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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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In the Matter of	)	
	)	
Rulemaking to Amend Part 1 and Part 21 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Band and to Establish Rules and Policies for Local Multipoint Distribution Service	)	CC Docket No. 92-297

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COMMENTS OF VIDEO/PHONE SYSTEMS, INC.

Video/Phone Systems, Inc. ("Video/Phone"), through its undersigned counsel, hereby submits comments on the Commission's proposal to utilize negotiated rulemaking ("NRM") procedures in the above-captioned Local Multipoint Distribution Service ("LMDS") rulemaking.[1/] By the NRM Notice, the Commission proposes to employ the NRM process to develop viable solutions to outstanding technical issues in the LMDS rulemaking relating to co-primary sharing of the 27.5 - 29.5 GHz band (the "28 GHz band") between the LMDS and the Fixed Satellite Service ("FSS"). Video/Phone applauds the Commission's proposal to employ the NRM mechanism in the LMDS rulemaking and looks forward to assuming an active role in the NRM Committee. As set forth in greater detail below, Video/Phone is confident that the LMDS NRM process will result in the formulation of a viable regulatory framework for co-primary LMDS/FSS sharing in the 28 GHz band, which will allow the benefits of proposed 28 GHz LMDS and FSS systems, including

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[1/] See FCC Public Notice, CC Docket No. 92-297, Mimeo No. 41726 (released February 11, 1994) 59 Fed Reg 7961 (February 17, 1994) (the "NRM Notice").

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new services and employment opportunities, to be brought to the public expeditiously.

I. Background

Video/Phone was instrumental in devising and promoting the initial concept of the family of 28 GHz band one- and two-way services that has come to be known as LMDS. Video/Phone proposed Commission implementation of LMDS in a petition for rulemaking filed on January 15, 1992.[2/] As an early LMDS proponent, Video/Phone has a substantial investment in the outcome of the LMDS proceeding.

Video/Phone recognized the importance of achieving compatibility between proposed 28 GHz LMDS and FSS system operations in the initial stages of its LMDS R&D efforts. With due attention to this critical objective, as well as other key service requirements, Video/Phone jointly developed with Endgate Technology Corporation ("Endgate") an advanced LMDS system design.[3/] The resulting LMDS system architecture is intended to facilitate shared co-primary co-channel LMDS operations with a full range of 28 GHz FSS system configurations, while also

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[2/] See Petition of Video/Phone Systems, Inc., RM-7872, (filed January 15, 1992). Video/Phone's principals were involved in the development of 28 GHz service initiatives for almost two years prior to the filing of the Video/Phone rulemaking petition.

[3/] Endgate is a Sunnyvale, California-based company that is a leader in the development and production of millimeter wave RF component and system technologies.

accommodating all current and projected LMDS service requirements.

Video/Phone has consistently maintained that co-primary co-channel LMDS/FSS sharing of the 28 GHz band can be accomplished through careful attention to interservice compatibility in the design and deployment of LMDS and FSS systems. Video/Phone early on emphasized interservice compatibility in its LMDS technology development efforts. This allowed Video/Phone to assume a leading role in advocating viable technical approaches to co-primary co-channel LMDS/FSS sharing. The record in the LMDS rulemaking reflects the fact that Video/Phone was principally responsible for initiating efforts to develop a viable regulatory framework for co-primary co-channel use of the 28 GHz band by LMDS and FSS systems.[4/]

Video/Phone has also spearheaded efforts to develop a practical framework of sharing criteria that can be codified in the Commission's Rules to facilitate the licensing of co-primary co-channel LMDS and FSS system operations. In this regard, on March 10, 1994, Video/Phone submitted a service rule proposal consisting of a combination of mainbeam elevation angle and power spectral density ("PSD") emission limits, specifically intended to facilitate compatible 28 GHz LMDS and FSS operations.[5/]

[4/] See, e.g., Reply Comments of Video/Phone Systems, Inc., CC Docket No. 92-297 (filed April 15, 1993).

[5/] See Letter from Walter H. Sonnenfeldt, counsel to Video/Phone Systems, Inc. to Thomas Tycz, Deputy Chief, Domestic Facilities

(continued...)

Video/Phone has also held a series of informal meetings with a number of the leading LMDS and FSS parties in this proceeding to discuss Video/Phone's co-primary LMDS/FSS sharing approach. As set forth in Video/Phone's March 10, 1994 letter submission, and as discussed more fully below in Section III, Video/Phone maintains that the general service rule structure it has proposed is technically feasible and offers a highly practical means of achieving co-primary co-channel LMDS/FSS sharing in the 28 GHz band. Video/Phone is prepared to work with all members of the LMDS NRM Committee to finalize a mutually agreed upon service rule structure for co-primary LMDS/FSS operations in the 28 GHz band. Video/Phone believes that this approach will help speed the deployment of both LMDS and FSS systems, which will allow the creation of numerous jobs and the availability of new services.

II. Video/Phone Supports The Commission's Proposal To Establish The LMDS Negotiated Rulemaking Committee And Maintains That There Is A Strong Likelihood That The Negotiations Will Be Successful

Video/Phone commends the Commission for proposing to utilize negotiated rulemaking procedures in the LMDS rulemaking as a vehicle to develop a workable approach to co-primary sharing

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[5/](...continued)
Division, Common Carrier Bureau, CC Docket No. 92-297 (filed March 10, 1994).

between LMDS and FSS systems.[6] Video/Phone's recent discussions with the other LMDS proponents and the affected Ka-band FSS concerns indicate that there is widespread support for the formation of the LMDS NRM Committee.

There are also many positive indications that the parties identified for Committee membership in the NRM Notice are willing to seriously consider compromises that can lead to a successful conclusion of the negotiations. Specifically, based on discussions with other affected parties, Video/Phone believes that there appears to be a growing acceptance among the LMDS and FSS parties of Video/Phone's proposal to utilize a framework of LMDS and FSS operating limits to facilitate co-primary co-channel LMDS/FSS sharing. It also appears that there is a general consensus among the parties that the negotiations can be expedited by developing early in the NRM process commonly accepted LMDS and FSS system deployment and interservice interference models.[7]

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[6] Among the parties commenting on the First Notice of Proposed Rulemaking in the LMDS proceeding, Video/Phone was alone in recommending the use of the NRM process to resolve unsettled issues relating to co-primary LMDS/FSS sharing. See Reply Comments of Video/Phone Systems, Inc., CC Docket No. 92-297 (filed April 15, 1993), at 12.

[7] Efforts are already underway to jointly develop commonly accepted models for quantifying aggregate interference from LMDS systems into LEO and GSO FSS spacecraft operations. Work has also begun on formulating a mutually acceptable model to predict interference from the various classes of FSS uplink operations into LMDS systems.

Taking all these circumstances into account, it is clear that the Commission correctly concluded that all statutory threshold criteria for implementation of the LMDS NRM Committee have been met.[8/] Similarly, it appears at this point that there is a strong likelihood that the negotiations will be successful in formulating a viable regulatory structure for co-primary LMDS/FSS sharing of the 28 GHz band, thus allowing the numerous benefits of LMDS to be enjoyed in the United States.

III. Viable Technical Rules Can Be Adopted That Will Facilitate Co-Primary Co-Channel LMDS/FSS Sharing of the Entire 27.5 - 29.5 GHz Band

Video/Phone is confident that viable technical rules can be adopted that will facilitate co-primary co-channel LMDS/FSS sharing of the entire 28 GHz band. Video/Phone maintains that the relative cost impact of co-primary co-channel sharing will be the least expensive alternative to satisfying the respective spectrum requirements of the LMDS and FSS industries.[9/] Furthermore a co-primary co-channel solution to LMDS/FSS sharing will maximize the public interests by allowing both services to operate in the same spectrum, thus ensuring the development of both industries and the concomitant creation of new jobs.

[8/] NRM Notice at para. 5.

[9/] Regardless of the solution that is ultimately adopted, Video/Phone believes that the costs of LMDS/FSS sharing should be apportioned among the affected parties in an equitable fashion.

As discussed in Video/Phone's March 10, 1994 letter, Video/Phone believes that a rule structure consisting of mainbeam elevation angle restrictions and PSD limits applicable to both LMDS and FSS operations offer a technically viable cost-efficient means of facilitating co-primary co-channel LMDS/FSS sharing. As proposed by Video/Phone, these limits would entail:

(1) A mainbeam elevation angle restriction (e.g., 10° maximum for LMDS hub operations and 30° minimum for FSS uplinks

(2) A peak PSD limit above a nominal 20° elevation angle plane for LMDS emissions, and below a nominal 20° elevation angle plane with respect to FSS emissions.

The operating limits described above would require that all authorized LMDS and FSS transmitting facilities utilize sidelobe suppression and/or other RF emission control techniques to meet agreed upon protection criteria for respective co-primary co-channel FSS and LMDS receiving facilities. Video/Phone maintains that currently available technology will allow LMDS and FSS system operators to both meet their full system deployment objectives and comply with the proposed operating limit structure in a cost-efficient manner. The results of the Video/Phone - Endgate millimeter wave technology development efforts provide one example of available technology that can meet this requirement.

It is important to note that Video/Phone's proposed structure of LMDS/FSS operating limits is also intended to form a

practical regulatory basis for blanket licensing of mass deployments of LMDS and FSS user premises terminals without prior coordination. There appears to be broad agreement that the economic viability of LMDS and FSS systems that utilize 28 GHz band spectrum for user terminal links will depend on the ability of system operators to deploy the vast majority of user premises terminals on a blanket license basis. If necessary, criteria relating to mainbeam elevation angle and sidelobe emission densities could also be used to determine which types of LMDS and FSS transmitting facilities will require coordination prior to being placed in operation.

IV. The LMDS Negotiated Rulemaking Committee Should Focus On The Development of A Technical Framework For LMDS/FSS Sharing In the 28 GHz Band

In addition to tasking the LMDS negotiated rulemaking Committee with developing a service rule structure to facilitate co-primary LMDS/FSS sharing, the NRM Notice also proposes that, if technical negotiations are successful, the Committee provide an analysis of the underlying economic considerations demonstrating why its proposed solution will serve the public interest, as compared to other possible LMDS and FSS implementation approaches.[10/] Video/Phone readily agrees with the Commission's view that the viability of any technical solution to

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[10/] See NRM Notice at para. 6.

LMDS/FSS sharing will depend in substantial part upon a positive finding that the economic and public interest considerations support that particular solution.

As previously discussed, Video/Phone believes there is a strong likelihood that the LMDS NRM process will be successful in developing a viable solution to co-primary LMDS/FSS sharing. This will require a willingness to negotiate in good faith, a high level of technical expertise on the part of the Committee participants, and a narrowly focussed Committee agenda.[11/] For this reason, Video/Phone recommends that, in establishing the LMDS NRM Committee, the Commission should clarify that Committee consideration of economic and public interest factors should be solely within the context of weighing the viability of potential solutions for LMDS FSS sharing.

V. Designation of NRM Committee Representative

Video/Phone hereby designates its President, Mr. Don Franco, as its representative on the LMDS NRM Committee. Video/Phone and Mr. Franco are fully committed to negotiating in good faith to

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[11/] Video/Phone is concerned that, under certain circumstances, some parties may deem it in their interest to induce the LMDS NRM Committee to engage in debates over the relative public interest value of LMDS versus FSS. The Commission properly separated consideration of these issues in the Second Notice of Proposed Rulemaking in the LMDS proceeding by determining that comparative LMDS and FSS service benefits would be considered only if the LMDS NRM Committee is not successful in achieving its mandate. See Second Notice of Proposed Rulemaking, CC Docket No. 92-297, FCC 94-12 (released February 11, 1994) at para. 47.

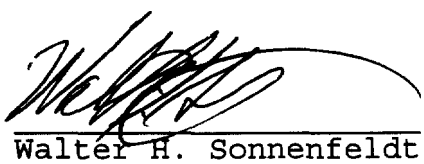
develop technical rules that maximize prospects for co-primary LMDS/FSS sharing in the 28 GHz band.

Conclusion

Video/Phone supports the Commission's proposal to establish a negotiated rulemaking Committee in the LMDS rulemaking. Based on recent developments, Video/Phone believes that there is a strong likelihood that the negotiations will be successful in formulating a viable regulatory structure for co-primary LMDS/ FSS sharing of the 28 GHz band. Such a solution will help speed the deployment of both LMDS and FSS systems, resulting in new services and the creation of new jobs. For the above-stated reasons, the Commission should expedite the formation of the LMDS NRM Committee.

Respectfully submitted,

VIDEO/PHONE SYSTEMS, INC.

By: 

Walter H. Sonnenfeldt

Walter Sonnenfeldt &
Associates
4904 Ertter Drive
Rockville, MD 20852
(301) 770-3299

By: 

Albert Halprin
Stephen L. Goodman

Halprin, Temple & Goodman
1100 New York Avenue, NW
Suite 650 East
Washington, DC 20005
(202) 371-9100

Its Attorneys

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